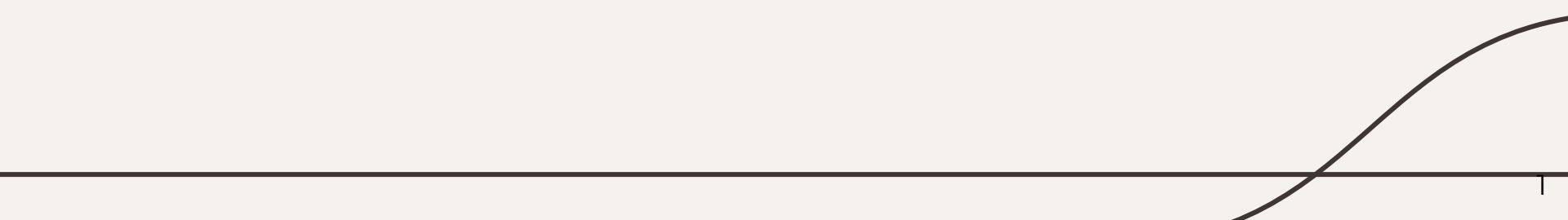




UnityLink

Bond Beyond Borders - Team 4

Derek Lee, Emi Nakata, Lien Nguyen, Michael Riswanto, and Reata Oluoch



Our Team



Derek Lee

Lynwood, WA

Second Year



Emi Nakata

Seattle, WA

Second Year



Lien Nguyen

Seattle, WA

Third Year



Michael Riswanto

Auburn, WA

Third Year

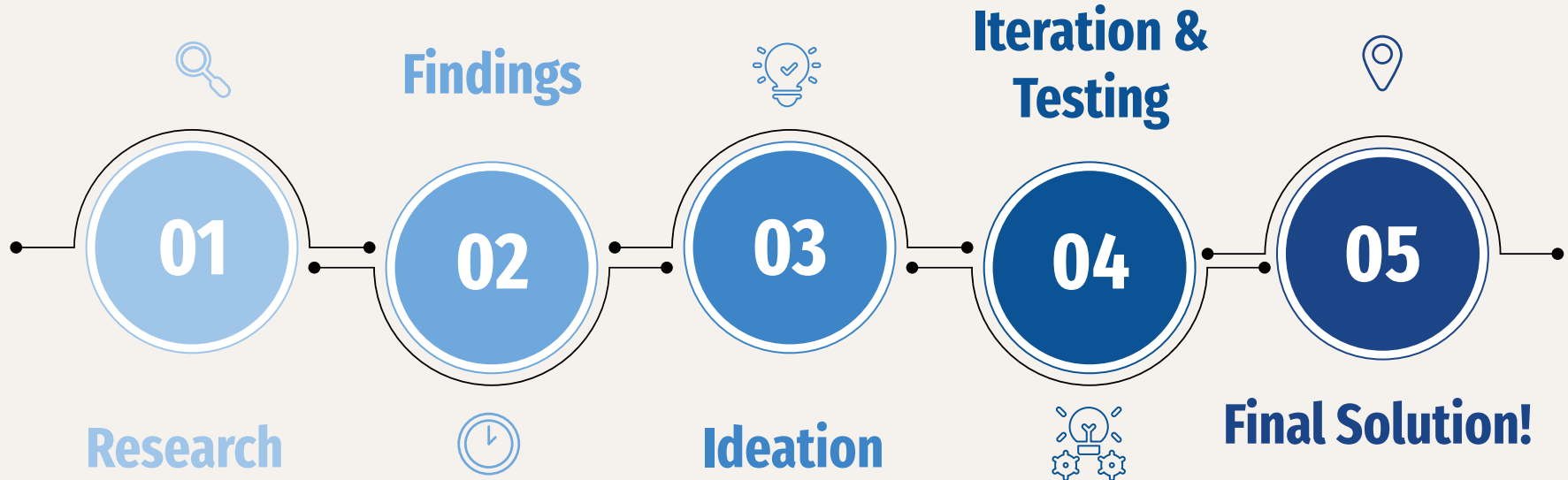


Reata Oluoch

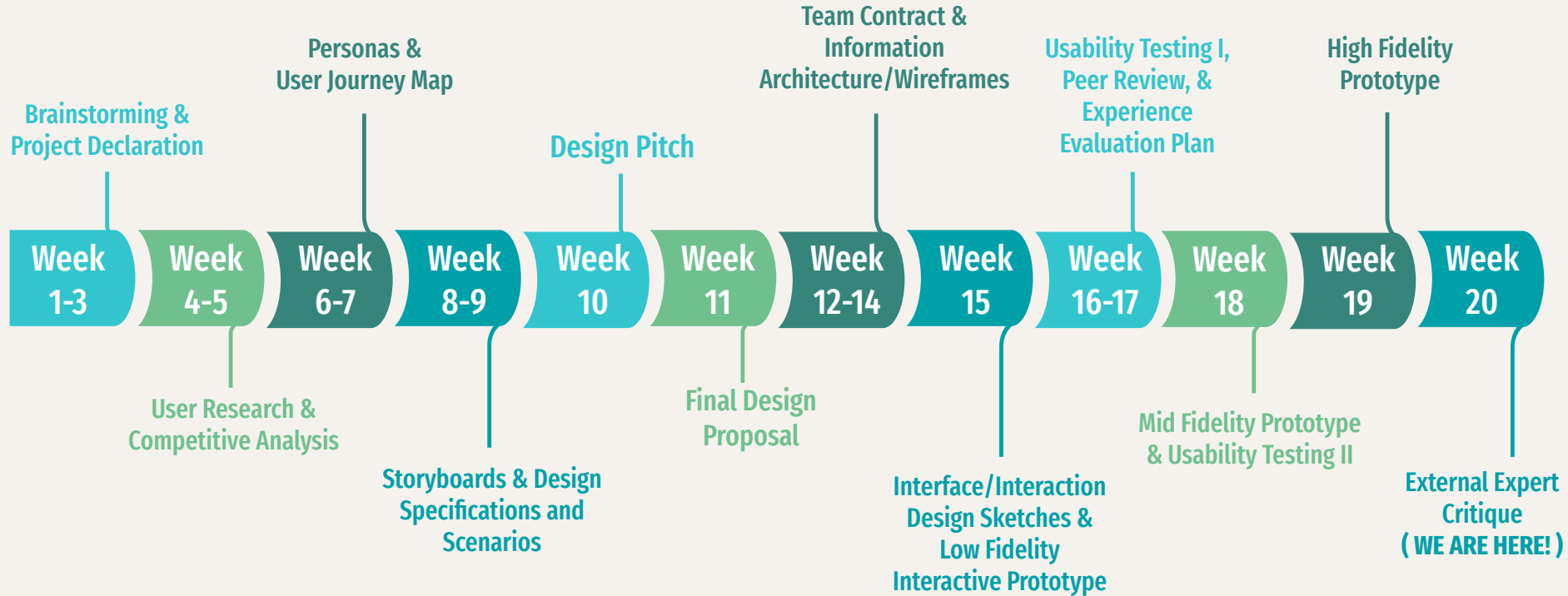
Seattle, WA

Third Year

Today's Roadmap



Our Timeline



Problem Statement

“How might we support young adults in long-distance friendships or relationships to improve their emotional connection through virtual communication?”

Our Research Process



Competitive Analysis

Analyzing existing solutions and tools supporting long-distance communication



Interviews

Speaking to four different individuals in long-distance relationships and friendships

Competitive Analysis of Existing Solutions



FaceTime

Video and audio calling app for Apple devices



Apple Vision Pros

Brings user's screens to life in their physical space



Meta Portal

A smart video calling device designed for home use



AR Glasses

Utilizes augmented reality to bring the digital into reality

User Interview Questions



“Which online tools or apps do you use to communicate virtually with your loved ones?”



“What problems do you face communicating with your friend or partner online?”



“Can you describe the ideal virtual communication app that you want to use to connect to your loved ones?”

Research Findings

01

Time & Schedules

Difficulty finding the right time to connect and talk

02

Miscommunication

Lack of nonverbal cues and availability to communicate

03

Emotional Intimacy

Hard to feel connected through a screen

04

Internet Connection

Issues utilizing virtual platforms efficiently

Our Personas



Isabella Parker

- Hospital nurse with long-distance partner
- Finds it difficult to manage different time zones
- Wants to connect with partner and express appreciation each day



James Martin

- UW student with friend in California
- Lack of shared activities and interests
- Wants to stay connected every other week with shared experiences



Isabella Parker's Experience Map


Before Work (9AM - 2PM)


During Work (2PM - 10PM)


After Work (10PM - 12AM)


Actions



Wakes up in the morning and gets ready for a new day



Opens phone to text partner but remembers he's already at work and hasn't texted her.


During her lunch break at the hospital, she texts her partner to check up on him.


Throughout her shift they miscommunicate over text.


Finally able to call her partner at night after shift.


Argue over the phone due to the miscommunication over text earlier.


Finish calling each other and goes to sleep.

Thoughts

"I can't wait to start the day and talk to my partner!"

"I wish *I could talk to him right now...* if only we didn't have this time difference."

"I know we're both busy, but I still want to *stay connected* even when we're at work!"

"*I feel like he's mad at me right now* and I'm frustrated he didn't talk to me in the morning... does he hate me?"

"It's been a long day and I'm exhausted, but I can't wait to *finally talk to and see him.*"

"I'm so frustrated. I feel like *we're not getting through to each other.* We can't come to an understanding."

"I'm *worried for our relationship* because we're not able to solve this conflict. I feel so disconnected from him nowadays. I just wish we could *be with each other in-person.*"

Emotions

High

Medium

Low

Emotions Key

Happiness



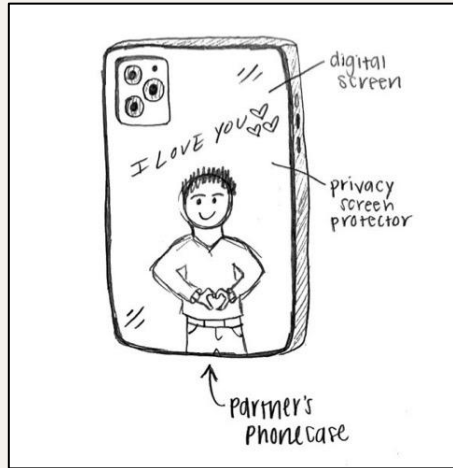
Anxiety



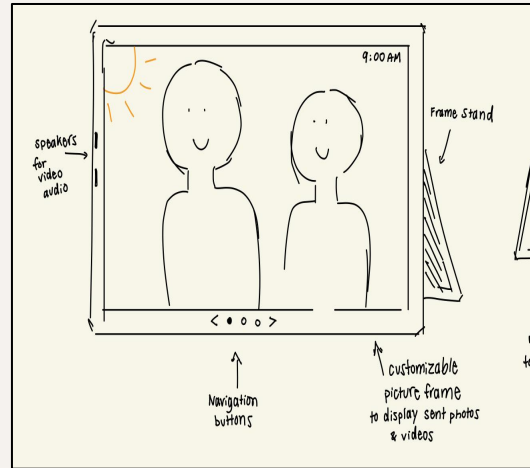
Frustration



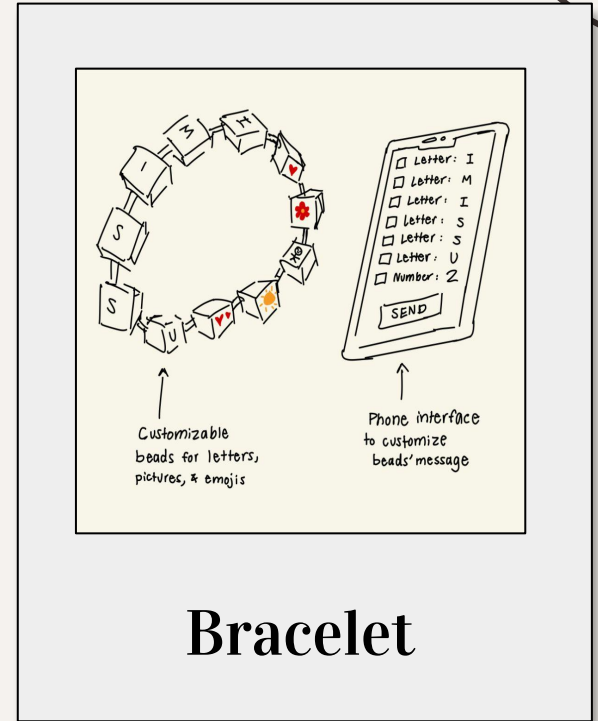
Design Ideas



Phone Case



Smartboard



Bracelet

Alternate Prototypes & Scenarios

Phone Case

- Customize partner's phone case remotely with photos or written messages
- User receives a notification when a new case design is sent

Isabella and her partner are having busy work days. They have no time to pick up their phones and text each other. Phone case would allow them to receive case designs without directly using of their device.

Smartboard

- Mark and compare availability
- Communicate asynchronously by messages and sketches

Isabella wants to call and text her partner but cannot find time due to different time zones. Smartboard would compare their free time and find the best time for them to connect.

UnityLink Storyboard

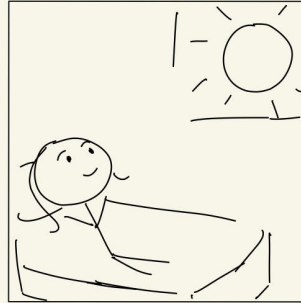
Scenario

Isabella and her partner struggle to find time to talk in the morning due to their work schedules and the time difference.

Wearable Bracelet

- Change each bead to a letter, picture, or emoji
- Set their partner's bracelet color
- Notifies users of new messages
- React or quickly reply with E-touches by tapping.
- A portable connection reminder

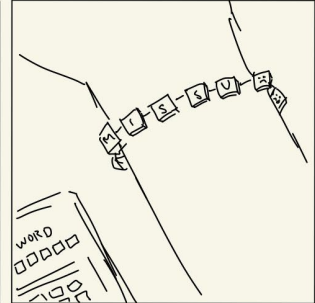
Wakes up ready for new day



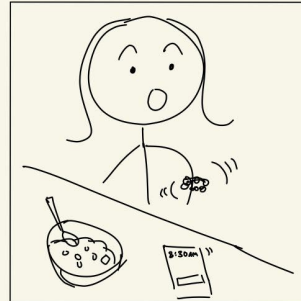
Misses partner while they're at work and she's home



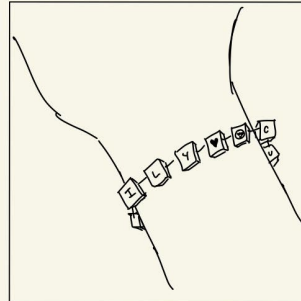
Sends bracelet message expressing herself through pics, colors, and words



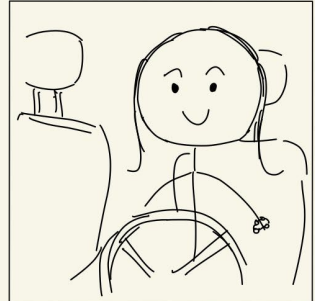
Notified when partner sends bracelet message back



Partner comforts and expresses themselves back



Goes to work content and feels connected with partner



Our Design Requirements



Connectivity

Remote and asynchronous usage



Portability

Lightweight and compact to carry



Notifications

Vibration on wearable and on device



Customization

Features to personalize user experience



Easy Setup

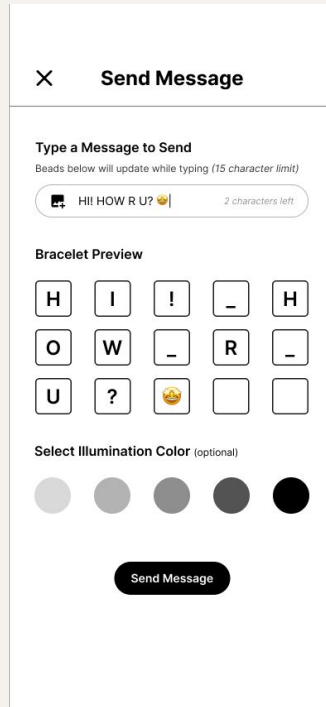
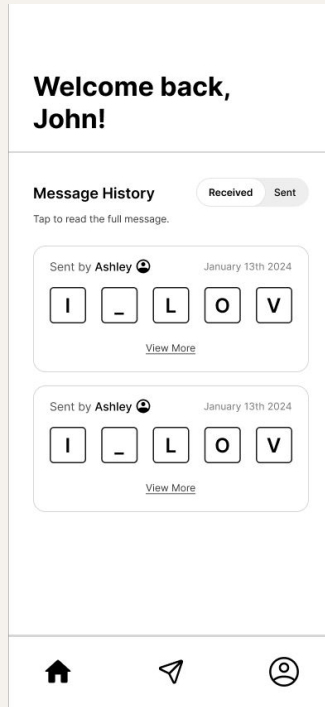
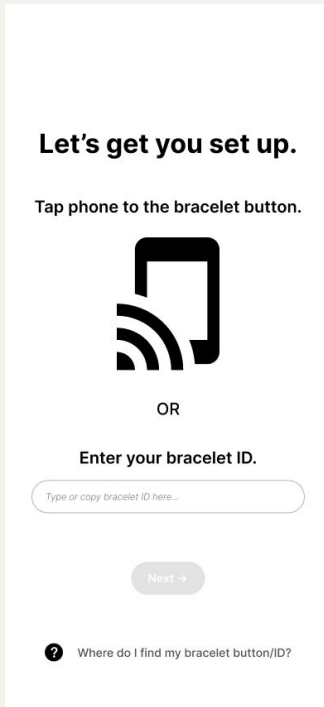
Quick setup for efficient time usage



Save Media

Collect timestamps and memories

Low Fidelity Bracelet & Digital App



Usability Testing Round 1



“The onboarding process was confusing... I didn’t know where to go with all of the options.”

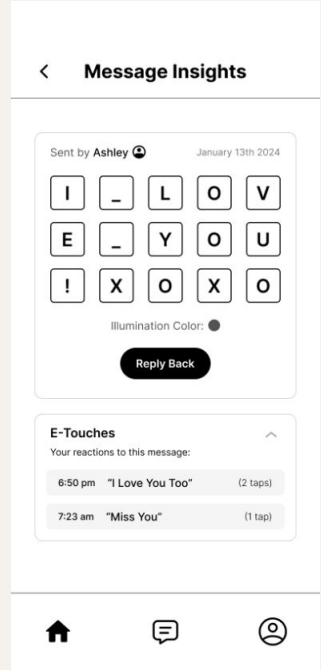
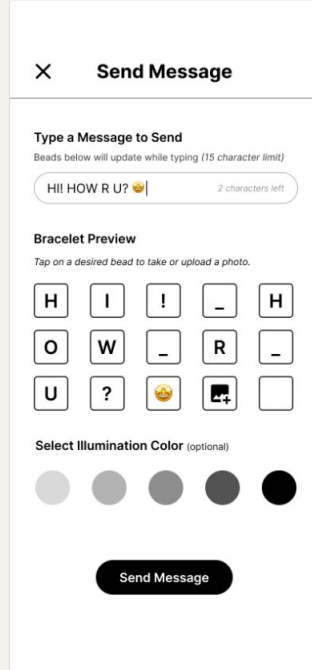
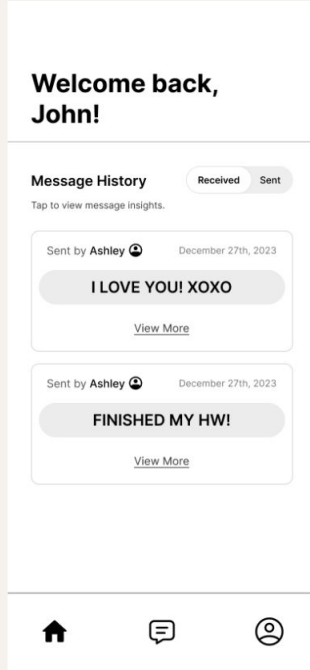
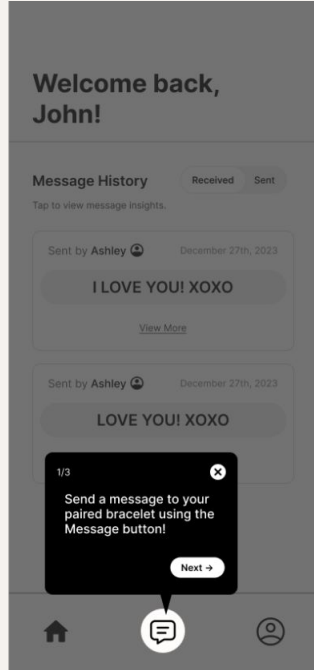
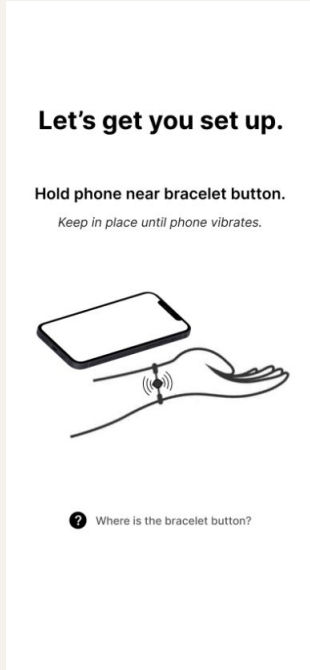


“I didn’t know where to send a message. I felt like I was just clicking through the prototype.”



“I forgot to send a picture with the message... I didn’t notice it was in the same place you could type.”

Mid-Fidelity Digital App



Usability Testing Round 2



“The updated onboarding designs were helpful and understandable.”



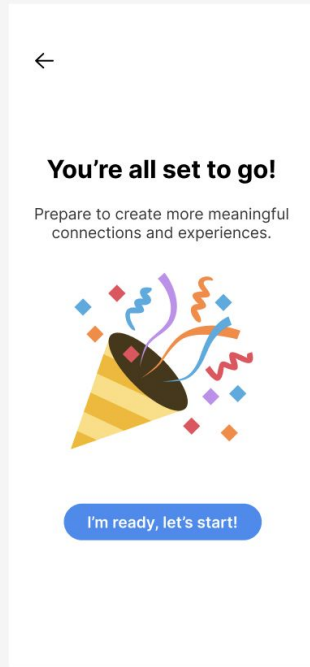
“The tutorial helped me send messages faster, I think the instructions made navigating the app easier.”



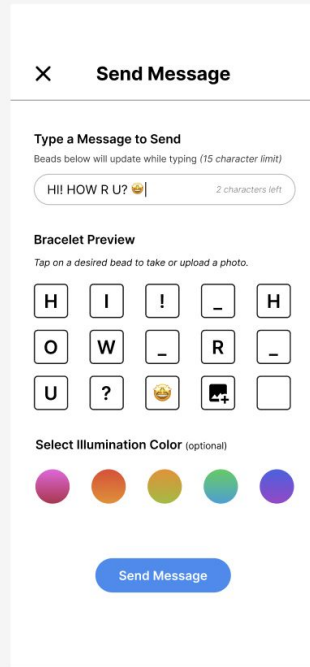
“I wonder if the E-touches should be under the sent or received section, because I “sent” the reaction, but it appeared under the received section.”

Final Hi-Fidelity Bracelet & Digital App

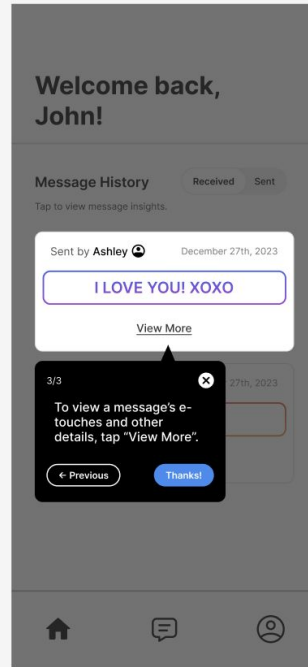
iPhone 14 & 15 Pro - 76



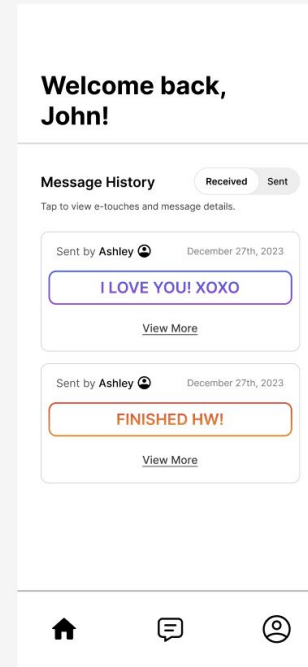
iPhone 14 & 15 Pro Max - 141



iPhone 14 & 15 Pro Max - 139



iPhone 14 & 15 Pro Max - 140



High-Fidelity Prototype Walkthrough!

Research Findings

01

Time & Schedules

User's can send/receive messages and E-touches whenever it is convenient for them.

02

Miscommunication

Not intended for long conversations, just quick and simple symbols of affection.

03

Emotional Intimacy

User's can always show that they are thinking of their loved one.

04

Internet Connection

Internet is not required for E-touches, just sending/receiving messages.